

Wisconsin Bald Eagle and Osprey Surveys 2004

Ronald Eckstein – Rhinelander
Greg Dahl – Wisconsin Rapids
Brian Glenzinski - Appleton
Bill Ishmael – Spring Green
John Nelson – La Crosse
Patricia Manthey – La Crosse
Michael Meyer – Rhinelander
Lowell Tesky – Hayward

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Bald eagle data from 1973 to 1989 was summarized from the annual bald eagle survey flights of Charles Sindelar. Special thanks go to Dave Evans, Rex Runke, Madison Audubon, and Wildlife Management staff for conducting ground observations.

Summary

DNR Wildlife Management staff conducted breeding survey flights using DNR pilots and aircraft. U.S. Fish & Wildlife Service pilots surveyed certain nests along the Upper Mississippi Fish & Wildlife Refuge. The first eagle flight was flown in early April to locate active nests and the second eagle flight was flown in June to count young. The first osprey flight was flown in mid May to locate active nests and the second osprey flight was flown in mid July to count young. Ground observations by volunteers and banders supplemented the aerial checks. Regional reports that detailed all eagle and osprey nest locations and summarized eagle and osprey productivity by county were developed. These reports are on file at the Bureau of Endangered Resources' Natural Heritage Inventory in Madison.

Aerial surveys were conducted along the Mississippi River and the Lower Wisconsin River by DNR staff to locate wintering eagles.

DNR staff and volunteer rehabilitators collected dead and injured eagles. Dead birds were necropsied by DNR Wildlife Management Staff Veterinarians in Madison. Local licensed rehabilitators treated injured birds. Severely injured birds were shipped to The Raptor Center at the University of Minnesota at St. Paul. Eagle carcasses were sent to the National Eagle Repository at Rocky Mountain Arsenal, Colorado. From this repository feathers were sent on request to Native Americans for religious purposes.

Throughout the state, DNR staff contacted private landowners to protect eagle nests from disturbance. On public properties all nests are fully protected from disturbances and habitat is managed to promote large, supercanopy white pines.

Bald Eagles

There were 992 eagle nest territories occupied by breeding adults in 2004. This was an increase of 112 pairs from 2003. Occupied means the observer recorded one or more of the following: incubation, eggs, young, or a repaired nest. Eagles nested in 57 of the state's 72 counties (Figure 1). At least 1,127 young were observed in 707 nests in 2004. The 707 nests with known outcomes had an average 1.14 young per occupied territory and 1.59 young per successful territory. Nest success was 71%. Table 1 provides a regional summary of productivity and success. The increase in eagle territories was distributed across their range in Wisconsin but the increase was largest in Vilas and Oneida Counties and along the Mississippi River.

The inland lakes region of northwest and north central Wisconsin held 70% of the state's breeding population of bald eagles. Statewide, the number of young produced in 2004 is at the level needed for the eagle population to continue its overall rate of growth and expansion.

Winter Surveys

Each January an aerial survey of wintering eagles is flown on the lower Wisconsin River from the Petenwell Dam in Adams County to Prairie du Chien in Crawford County. The five-year average is 264 eagles observed along the river corridor. The 2004 count was 614 eagles while the 2005 count was 117 eagles. The lower number of eagles observed in 2005 was likely the result of low shad populations in the Wisconsin River. Eagles were more widely distributed with fewer birds concentrated along the river corridor.

Eagle Deaths & Injuries in Wisconsin

DNR staff and volunteers recovered over 80 sick, injured, or dead eagles in 2004. The leading cause of death was being hit by a car. Most vehicle collisions occurred when eagles were scavenging car-killed deer. Other common causes of eagle mortality include lead poisoning, electrocution, eagle versus eagle territorial fights, and unspecified wing injuries.

Eagle Translocation

Four young eagles were taken from nests in northwestern Wisconsin and transferred to the Hudson River in New York City for reintroduction. Since 1975, 211 Wisconsin eaglets have been transferred to six different eastern states for reintroduction. Today, Wisconsin eagles and their descendants live in all these six states.

Osprey

There were 437 osprey nest territories occupied by breeding adults in 2004. This is an increase of 32 pairs from 2003. These 437 pairs of osprey produced 522 young with 1.19 young per occupied nest, 1.83 young per successful nest, and 65% nest success (Table 2).

Nesting pairs of osprey remained stable or declined in north central and west central Wisconsin but increased in northwest, northeast, and eastern Wisconsin (Figure 2). A greater effort to locate osprey nests was the main reason osprey pairs increased in northeastern and eastern Wisconsin. North central Wisconsin osprey nest success and productivity were well below other regions of Wisconsin. North central Wisconsin osprey share their northern lake nests with a dense population of breeding bald eagles. For example, Oneida County has 81 pairs of osprey and 118 pairs of bald eagles.

Through 2003, the statewide 10-year average osprey population size was 390 pairs (ranging from 364 to 407 pairs). However, in the last three years the osprey population increased from 383 to 405 to 437 pairs (Figure 4).

Osprey continue to nest on unusual structures in odd locations including DNR fire towers, tall light poles at ballparks, a crane boom in a gravel pit, and on a rock in a lake. The osprey nest on the rock in Sawyer County was just two feet from an active common loon nest. The osprey pair raised three young but the common loon was still incubating on July 12th.

The osprey remains listed as a Wisconsin State Threatened Species. Their overall population is less than half that of the statewide eagle population. Ospreys nested in 48 of the state's 72 counties.

Osprey Platforms

DNR Wildlife biologists erected over 200 osprey nest platforms between 1972 and 1993. Osprey nest on these platforms and the platforms provide a secure nest site. Since 1993, various conservation organizations and power companies erected additional nest platforms on power lines and other structures. In 2004, thirteen nest platforms were erected throughout Wisconsin by the Wisconsin Public Service Corporation, the American Transmission Company, DNR, and various conservation groups. Today about 75% of the state's breeding osprey population nest on platforms.

Osprey Translocation

Wisconsin entered the ninth year of the osprey translocation project. Nineteen osprey young were taken from nests in northwest Wisconsin and sent to four hack sites in Iowa. The birds were taken from nests with multiple young and one young was always left in the nest. The osprey young were given health exams at The Raptor Center in St. Paul before shipment to Iowa. Iowa had their first osprey nest in 2003 and their first osprey young in 2004. In Iowa, three young hatched at Coralville Lake in Johnson County and one young hatched at Spirit Lake in Dickenson County. Since 1996, 133 Wisconsin osprey young have been translocated to other states.

Natural Heritage Inventory

The detailed locations of over 1,000 known eagle nests and over 400 known osprey nests are on file with Wisconsin's Natural heritage Inventory (NHI) in the Bureau of Endangered Resources. The NHI is the repository for all information on Wisconsin's threatened and endangered species. It also tracks rare species and species of special concern. The NHI is used to screen all land use activities that require a state or federal permit and is the primary mechanism used to protect eagles and osprey nests.

Table 1. *Summary of the 2004 Bald Eagle Survey in Wisconsin.*

Locality in Wisconsin	Occupied Territories	Successful Territories	Total Young	Young Per Occupied	Young Per Successful	Percent Nest Success
Northwest	368	268	423	1.15	1.58	73
North Central	314	191	290	0.92	1.52	61
NE & East	107	82	140	1.31	1.70	76
Central	33	27	47	1.42	1.74	82
West Central	135	111*	169*	1.25	1.52	82
Southern	35	28	58	1.66	2.07	80
Total	992	707	1,127	1.14	1.59	71

*Minimum count because of a dense leaf canopy over some nests.

Table 2. *Summary of the 2004 Osprey Survey in Wisconsin.*

Locality in Wisconsin	Occupied Territories	Successful Territories	Total Young	Young Per Occupied	Young Per Successful	Percent Nest Success
Northwest	143	95	188	1.31	1.98	66
North Central	151	79	137	0.91	1.73	52
NE & East	84	65	116	1.38	1.78	77
Central	41	35	61	1.49	1.74	85
West Central	14	9	17	1.21	1.89	64
Southern	4	2	3	0.75	1.50	50
Total	437	285	522	1.19	1.83	65

Occupied Bald Eagle Territories 2004 Total = 992

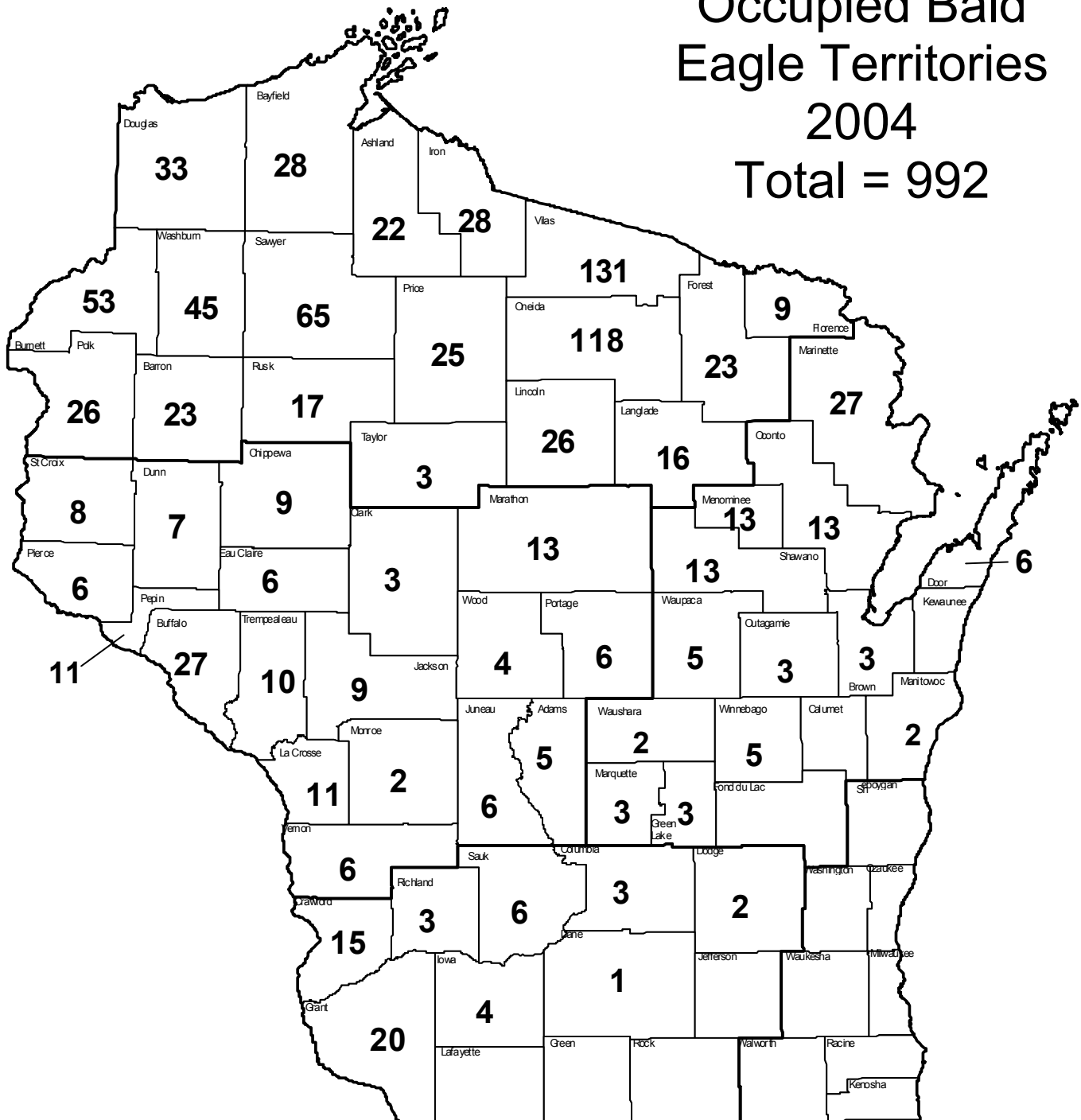


Figure 1. Occupied eagle territories are those territories where the observer recorded at least one of the following: a repaired nest, an incubating adult, eggs, or young in the nest.

Territories

2004

Total = 437

A map of Wisconsin divided into 9 counties, each labeled with a number representing its territory count in 2004. The counties and their counts are: Ashland (1), Bayfield (8), Burnett (20), Douglas (4), Iron (20), Lincoln (14), Marathon (8), Menominee (10), Oneida (81), Price (10), Rusk (4), Sawyer (31), Shawano (6), St. Croix (3), Taylor (3), Vilas (27), Washburn (26), Winnebago (2), and Wood (3). The total territory count for all 9 counties is 437.

County	Territory Count
Ashland	1
Bayfield	8
Burnett	20
Douglas	4
Iron	20
Lincoln	14
Marathon	8
Menominee	10
Oneida	81
Price	10
Rusk	4
Sawyer	31
Shawano	6
St. Croix	3
Taylor	3
Vilas	27
Washburn	26
Winnebago	2
Wood	3

Figure 2. Active osprey territories are those territories where the observer recorded at least one of the following: at least one adult at a repaired nest, an incubating adult, eggs or young in the nest.

WISCONSIN EAGLE NEST SURVEY, 1973 - 2004

Occupied Territories

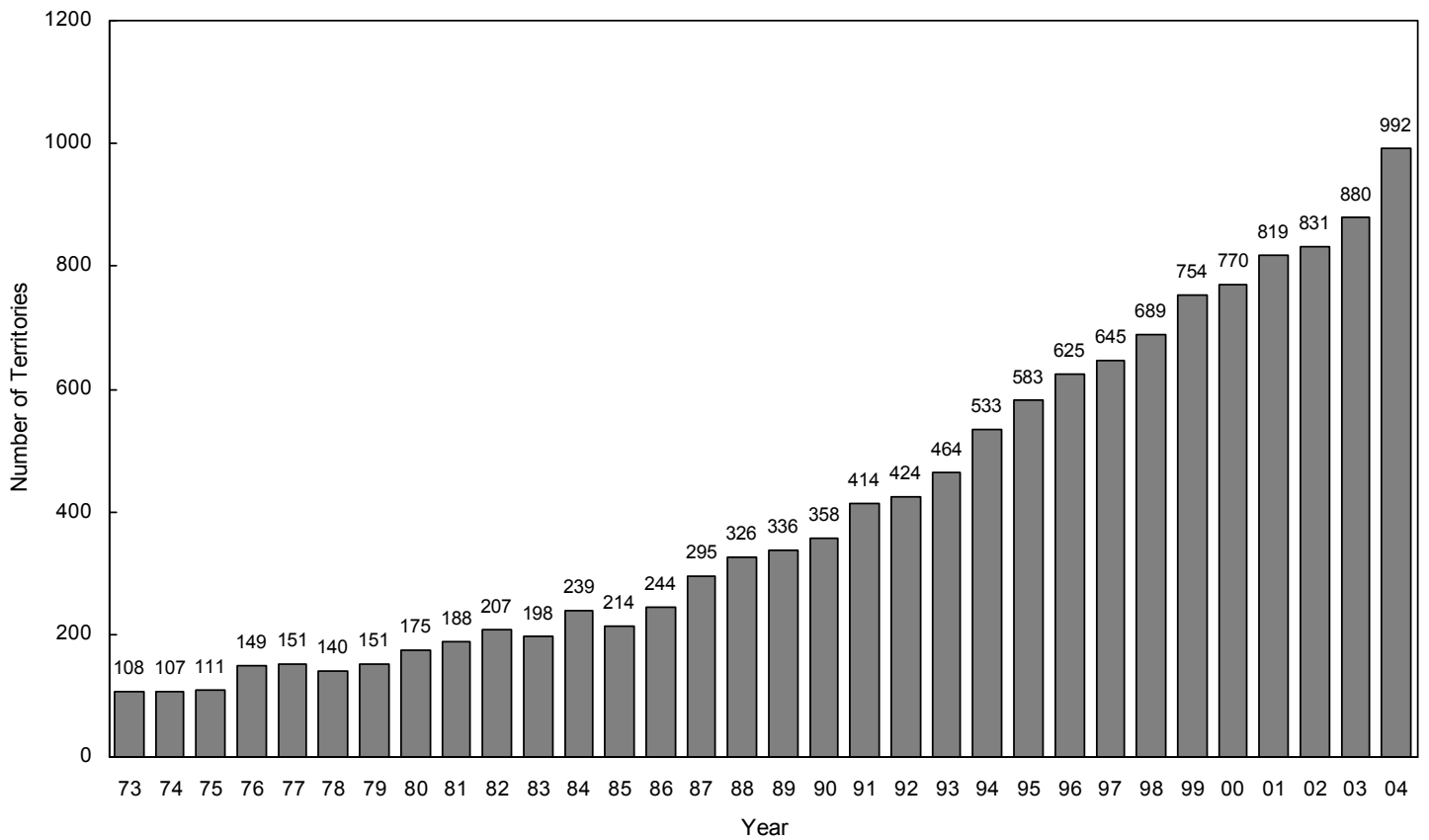


Figure 3. *Number of occupied eagle territories 1973-2004.*

WISCONSIN OSPREY NEST SURVEY, 1973 - 2004

Active Territories

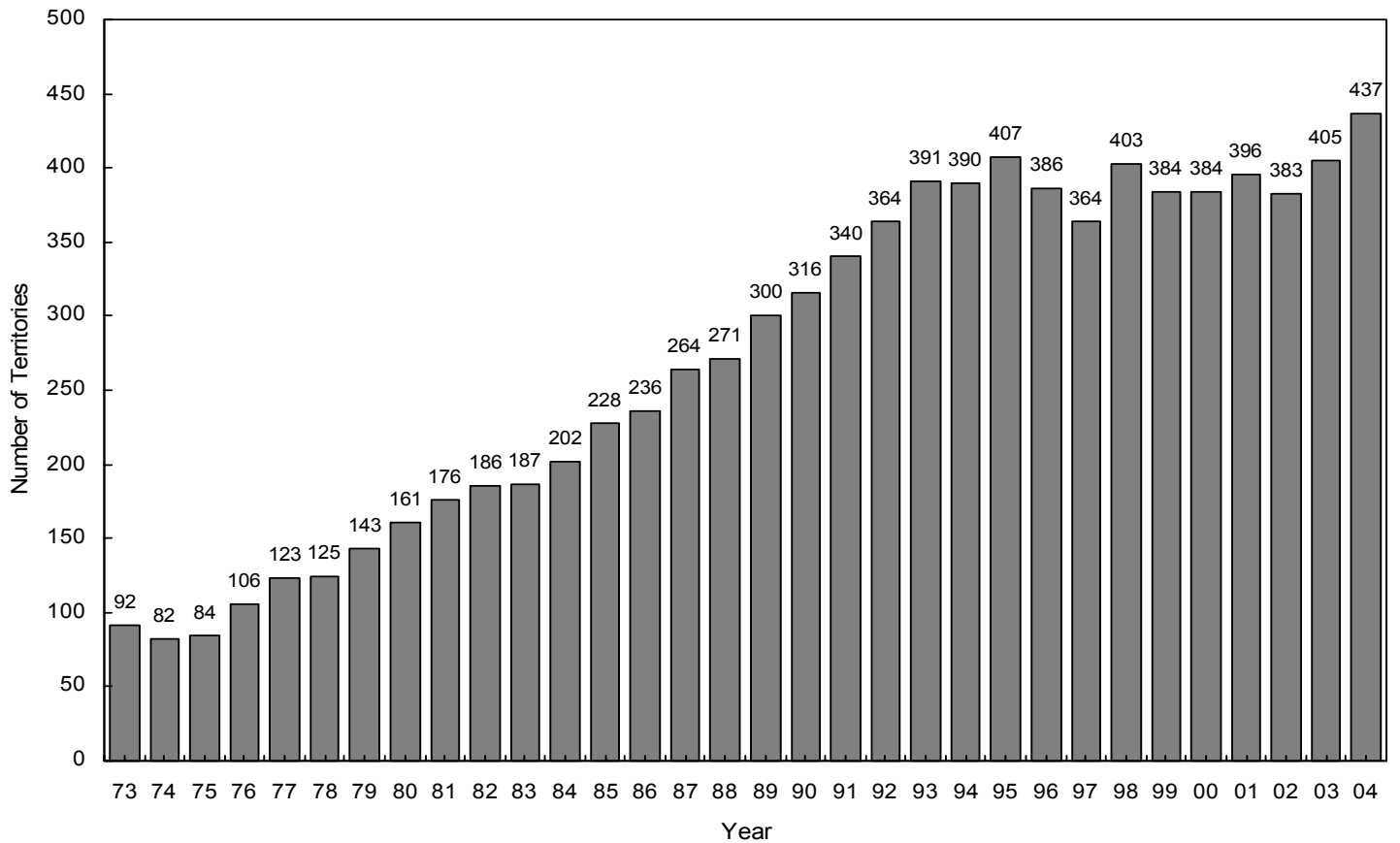


Figure 4. *Number of active osprey territories 1973-2004.*